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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,593	01/13/2006	Stephen William Sankey	DTG1-127US	1797
31344	7590	07/15/2011	EXAMINER	
RATNERPRESTIA			KASHNIKOW, ERIK	
P.O. BOX 1596			ART UNIT	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/564,593

**Applicant(s)**

SANKEY ET AL.

**Examiner**

ERIK KASHNIKOV

**Art Unit**

1782

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 May 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28, 31, 33-43 and 45-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28, 31, 33-43 and 45-47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-945)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-10, 12, 22-24, 27, 28, 31, 33-35, 41, 43, 46 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okhai (GB 2 355 956) in view of Freed (US 4,971,847) and Varriano-Marston (hereinafter Varriano)(US 6,441,340).

3. In regards to claims 1, 2, 12, 22, 23, 31, 34, 41, 43 and 47 Okhai teaches a film attached to a container wherein the film comprises at least one perforated layer and an unperforated heat seal layer (claims 1 and 5 and page 5 lines 28-33). Okhai teaches that the perforated layer be comprised of a polyester (page 4 line 10). Okhai further teaches that the film is permeable to water vapor and oxygen, including WVTR of greater than 60 g/m<sup>2</sup>/day (page 3 line 31 – page 4 line 4). Okhai et al. teaches that the film may be used to store cut plants such as vegetables (page 1 lines 5-7). With regards to claim 47 it is noted that the optional additional heat seal layer is not included,

4. In regards to claims 1, 6, 7 and 28 it would be obvious to one of ordinary skill in the art that adjust the thickness of a barrier layer would effect its barrier properties, as such absent a showing of criticality with respect to "thickness of the barrier layer" (a result effective variable), it would have been obvious to a person of ordinary skill in the

art at the time of the invention to adjust the "thickness of the barrier" through routine experimentation to values, including those presently claimed in order to achieve "desired barrier properties for the food article stored therein". It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

5. In regards to claim 5 as there is no limitation as to which surface of the perforated layer is the first or second the examiner picks the surface that the unperforated layer is attached to as the first surface.
6. In regards to claim 22 Okhai teaches that the film is formed by perforating the carrying layer and top layer then providing an unperforated layer thereon (page 3 lines 5-25).
7. In regards to claim 24 Okhai teaches that the unperforated layer is laminated to the perforated layer (page 3 lines 5-25)
8. In regards to claim 46 Okhai does not teach that the heat seal layer fills any of the perforations (figures and page 3 of specification).
9. While Okhai teaches the laminated film with a perforated and an unperforated layer they are silent with regards to the specific material of the barrier layer, density of perforations as well as diameter and concentration of the perforations.
10. It is noted with regards to claims 1, 22, 31 and 34 that Okhai et al. teach polypropylene and any other suitable barrier material for use as the barrier/heat seal layer (page 2 lines 26-28).

11. In regards to claims 1, 3, 22, 31 and 34 Freed teaches it is known in the food packaging art that polypropylene and polyethylene terephthalate (a preferred polyester of the instant invention), polycaprolactone, and polyamide are known equivalents in the food packaging art as gas permeable barrier layers (column 4 lines 40-47 and MPEP 2144.06 II).

12. In regards to claim 27 while Okhai et al. teach that the sealing/barrier layer is laminated to the substrate layer they are silent with regards to how this is done, however Freed teaches that it is known in the art to laminate barrier layers by process such as coextrusion and adhesives (column 5 lines 33-38) and that one of ordinary skill in the art would select the process of joining the layers together based upon the tools and materials at their disposal (MPEP 2144.06 II).

13. While Okhai and Freed teach the laminated film with a perforated and an unperforated layer they are silent with regards to the specific material of the barrier layer, density of perforations as well as diameter of the perforations.

14. In regards to claims 1, 4, 8, 9 and 10 Varriano teaches that it is known in the art to vary the size of perforations, density of perforations and degree of perforation of a film used to store plant matter to optimize storage of the specific product (column 5 lines 10-15). As such it has been shown that absent a showing of criticality with respect to "size, degree and concentration of perforations" (result effective variables), it would have been obvious to a person of ordinary skill in the art at the time of the invention to adjust the "size degree and density of the perforations" through routine experimentation to values, including those presently claimed in order to achieve "optimize the storage

time of the product stored therein". It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

15. It is noted that Varriano teaches specific perforation sizes including those presently claimed in claims 1, 4 and 9 (column 6 lines 30-36).

16. In regards to claims 33 and 35 Varriano teaches that these films are used for lids attached to trays or other containers (column 120 lines 1-17).

17. One of ordinary skill in the art at the time of the invention would be motivated to modify the invention of Okhai and Freed with that of Varriano because the invention of Varriano offers maximized storage times (column 5 lines 10-15).

18. Claims 13-15, 20, 21, 36 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okhai (GB 2 355 956) in view of Freed (US 4,971,847), Varriano-Marston (US 6,441,340) and Lin (WO 01/92000).

19. As stated above Okhai, Freed and Varriano teach a film for storing food materials that comprises a perforated and a non perforated layer however they are silent with regards to the substrate layer comprising PET as well as the clarity of the layers.

20. In regards to claims 13 and 14 Lin teaches a dual layer film comprising one layer that has been perforated and one layer that has not been perforated (page 3 lines 35-32). Lin teaches that the perforated layer may comprise polyethylene terephthalate

(hereinafter PET) which is a preferred heat sealable layer as taught by the instant specification.

21. In regards to claim 15 it is noted that this is merely a duplication of parts, and as such it is not given any patentable weight, it is noted that adding the second heat sealable layer, specifically another perforated PET layer no unexpected result would occur as the layer still allows for water vapor transmission and allows said film to be heat sealed (2144.04 VI).

22. In regards to claims 20, 21 and 45 Lin et al. teach that it is preferable that the film is transparent, and therefore would have a light transmittance at or near 100% (page 12 lines 26-32), it would be obvious to one of ordinary skill in the art at the time of the invention to limit the haze in transparent sections in order to provide a clear view of the item packaged, this would include embodiments below 6%.

23. In regards to claim 36 Lin teaches that the container may be used for foods that are cooked in a microwave oven (page 14 lines 1-15).

24. One of ordinary skill in the art at the time of the invention would be motivated to modify the invention of Okhai, Freed and Varriano with that of Lin because the invention of Lin offers the ability to form a package which finely controls the final condition of that packaged therein (page 14 lines 22-30).

25. Claims 11 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okhai (GB 2 355 956) in view of Freed (US 4,971,847), Varriano-Marston (US 6,441,340) and Rogers (US 4,918,156).
26. As stated above Okhai, Freed and Varriano teach films for use in packaging as well as methods for making said films, but however is silent regarding using copolyesterether as the substrate.
27. In regards to claims 11 and 42 Rogers teaches polyester resins which offer improved processability during manufacture (column 1 lines 5-6).
28. Rogers teaches that this polyester is a copolyesterether formed from 1,4-cyclohexanedimethanol (column 1 lines 5-10).
29. One of ordinary skill in the art at the time of the invention would be motivated to modify the package of Okhai, Freed and with the polyester of Rogers, because the polyester of Rogers offers improved processability during manufacture (column 1 lines 5-10) and a decrease in film splitting (column 2 lines 49-50).
30. Claims 16, 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okhai (GB 2 355 956) in view of Freed (US 4,971,847), Varriano-Marston (US 6,441,340), Lin (WO 01/92000) and Dominguez De Walter et al. (US 6,787,630 and hereinafter Dominguez).
31. As stated above Okhai, Freed, Lin et al. and Varriano teaches films for use in packaging as well as methods for making said films, but however is silent regarding the heat sealable layer comprising ethylene glycol, terephthalic and isophthalic acid.



32. Dominguez teaches heat stable polyesters which are easily reproduced (column 1 lines 7-10).

33. In regards to claim 16 Dominguez teaches copolyesters derived from ethylene glycol, and terephthalic and isophthalic acid (column 13 lines 1-10).

34. In regards to the concentrations of claims 37 and 38 it has been found that absent a showing of criticality with respect to "acid ratios" (a result effective variable), it would have been obvious to a person of ordinary skill in the art at the time of the invention to adjust the "acid ratios" through routine experimentation to values, including those presently claimed in order to achieve "polyesters with good color, and reduced degradation". It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

35. One of ordinary skill in the art at the time of the invention would be motivated to modify the package of Okhai, Freed, Lin et al. and Varriano with the copolyester of Dominguez because the copolyester of Dominguez offers outstanding clarity and coloring neutrality (column 1 lines 15-16).

36. Claims 17, 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okhai (GB 2 355 956) in view of Freed (US 4,971,847), Varriano-Marston (US 6,441,340), Lin (WO 01/92000) and McConnell et al. (US 4,450,250).

37. As stated above Okhai, Freed, Lin et al. and Varriano teach films for use in packaging as well as methods for making said films, but however is silent regarding a copolyester derived from ethylene glycol, terephthalic acid and cyclohexanedimethanol.
38. McConnell et al. teach adhesive polymers.
39. In regards to claim 17, 39 and 40 McConnell et al. teach a known adhesive polymer which is derived from ethylene glycol, terephthalic acid as well as 1,4-cyclohexanedimethanol (column 3 lines 51-60).
40. In regards to the concentrations in claims 39 and 40 it has been shown that absent a showing of criticality with respect to "molar ratios" (a result effective variable), it would have been obvious to a person of ordinary skill in the art at the time of the invention to adjust the "ratios" through routine experimentation to values, including those presently claimed in order to achieve "polyesters with good color, and reduced degradation". It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).
41. One of ordinary skill in the art at the time of the invention would be motivated to modify the film of Okhai, Freed and Varriano with the polyester adhesive of McConnell et al. because the adhesive composition of McConnell et al. which is well known in the art offers an ability to bind to a wide variety of materials as well as offering good cohesive and bond strengths and improved processing characteristics (column 1 lines 11 and 18-23).

42. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okhai (GB 2 355 956) in view of Freed (US 4,971,847), Varriano-Marston (US 6,441,340), Lin (WO 01/92000) and Harrington (US 4,172,824).

43. As stated above Okhai, Freed, Lin et al. and Varriano teach films for use in packaging as well as methods for making said films, but however is silent regarding a specific heat seal composition comprising an aromatic dicarboxylic acid, and aliphatic dicarboxylic acid and a glycol, it is noted that heat seal compositions comprising terephthalic acid and a glycol component have been previously taught.

In regards to claims 18 and 19 Harrington et al. teach a hot melt adhesive compound which comprises terephthalic acid and adipic acid and the glycol component is ethylene glycol (column 2 lines 20-30). Harrington et al. disclose the use of about 60% aromatic dicarboxylic, while the present claims require 55% aromatic dicarboxylic.

It is apparent, however, that the instantly claimed amount of 55% and that taught by Harrington et al. are so close to each other that the fact pattern is similar to the one in In re Woodruff, 919 F.2d 1575, USPQ2d 1934 (Fed. Cir. 1990) or Titanium Metals Corp. of America v. Banner, 778 F.2d 775, 227 USPQ 773 (Fed.Cir. 1985) where despite a "slight" difference in the ranges the court held that such a difference did not "render the claims patentable" or, alternatively, that "a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough so that one skilled in the art would have expected them to have the same properties".

In light of the case law cited above and given that there is only a "slight" difference between the amount of about 60% disclosed by Harrington and the amount disclosed in the present claims, it therefore would have been obvious to one of ordinary skill in the art that the amount of 55% disclosed in the present claims is but an obvious variant of the amounts disclosed in Harrington et al., and thereby one of ordinary skill in the art would have arrived at the claimed invention.

44. One of ordinary skill in the art at the time of the invention would be motivated to modify the film of Okhai, Freed, Lin et al and Varriano with the polyester component of Harrington et al. because the polyester component of Harrington et al. offers an excellent softening points and inherent viscosities (column 2 lines 22-33).

45. Claims 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okhai (GB 2 355 956) in view of Freed (US 4,971,847), Varriano-Marston (hereinafter Varriano)(US 6,441,340) and Wang et al. (6,143,818).

46. As stated above Okhai, Freed and Varriano teach films for use in packaging as well as methods for making said films, but however is silent regarding the method of applying an adhesive and using EVOH as an adhesive.

47. In regards to claim 25 Wang et al. teach spray melt blown methods as common methods for applying adhesives (column 1 lines 50-57).

48. In regards to claim 26 Wang et al. teach an adhesive which comprises ethylene vinyl alcohol (claim 11).

49. One of ordinary skill in the art at the time of the invention would be motivated to modify the invention of Freed, Okhai and Varriano with the adhesive of Wang et al. because the adhesives of Wang et al. offer improved cohesive strength as well as excellent heat stability (column 3 lines 20-27).

### ***Response to Arguments***

50. Applicant's arguments, see arguments, filed 05/09/11, with respect to the 35 U.S.C. 112 2<sup>nd</sup> paragraph rejection of the claims have been fully considered and are persuasive. The 112 2<sup>nd</sup> paragraph rejections of the claims have been withdrawn.

51. In regards to applicants arguments that it is not known in the art to vary thickness to adjust barrier properties, while not conceding that the examiners arguments are not based on common sense, the examiner submits the following three references that show it is well known in the art to change barrier properties by adjust the thickness of various types of layers: Uehara et al. (US 6,416,832) column 7 lines 24-32, Deak et al. (US 5085,904) column 1 lines 65-68) and Lustig et al. (US 4,828,891) column 1 lines 46-57.

52. In regards to applicants arguments regarding the examiners rejection based on substituting equivalents known for the same purpose as well as the declaration submitted by applicant the examiner agrees that the examples of Okhai et al. show the use of OPP, but Okhai does state that other polymers may be used depending on the properties desired, specifically pointing out that OPP is good for vegetables. Freed et

al. shows that along with polyolefins, polyesters and polyamides are also used in food packaging as barrier layers wherein it oxygen carbon dioxide and water vapor is to be allowed to pass, further while the declaration shows that polyesters and polyamides do have higher transmission rates it is noted that Okhai does not teach against using these polymers and further that Freed et al. teaches using these polymers as layers with higher transmission rates, as such the declaration and arguments are not found persuasive.

53. Examiner notes that while Lin, Rogers, Dominguez, McConnell, Harrington, Wang, Varriano and Freed do not disclose all the features of the present claimed invention, they are used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, and in combination with the primary reference, discloses the presently claimed invention. If the secondary reference contained all the features of the present claimed invention, it would be identical to the present claimed invention, and there would be no need for secondary references.

### ***Conclusion***

54. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIK KASHNIKOW whose telephone number is (571)270-3475. The examiner can normally be reached on Monday-Friday 7:30-5:00PM EST (Second Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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